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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/496,383	02/02/00	LUU	P 1775-1A

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EXAMINER

REDDICK, M

ART UNIT

PAPER NUMBER

1713

DATE MAILED:

4
12/20/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/496,383

Applicant(s)

LUU ET AL.

Examiner

Judy M. Reddick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

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DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5 and 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) The recited "selected from" per claims 1, 3, 4 and 27 and "selected from the group selected from" per claim 2 constitutes indefinite subject matter as per the use of improper Markush format, use of "selected from the group consisting of" is proper and is suggested.

B) The recited "to the fibrous web" per claim 1 constitutes indefinite subject matter as per the non-express establishment of proper antecedent basis.

C) In claims 5, 26 and 28, line 1, "creping adhesive" should be deleted and "adhesive composition" should be inserted in its stead so as to engender claim language clarity.

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D) In claim 1, line 1, it is suggested that applicants insert "composition" after "adhesive" so as to maintain claim language clarity.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 26 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kotani et al (U.S. 5,700,560) or Kotani et al (U.S. 5,969,029).

Each of Kotani et al disclose and exemplify compositions defined basically as containing a) a high hydrogen-bonding resin which

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includes polysaccharides such as chitosan, polyallylamine, chitin, etc. b) a non-film forming inorganic laminar compound, c) a crosslinking agent for the hydrogen-bonding resin which includes zirconium compounds such as ammonium zirconium carbonate, etc. and d) other conventional adjuvants. See, e.g., the Abstract, cols. 6-11 and Runs 21-25 and 30-33 of Kotani et al'560 and Kotani et al'029. Each of patentees therefore anticipate the instantly claimed invention with the understanding that one of ordinary skill in the art would have readily envisioned the use of the hydrogen-bonding resin chitosan in lieu of the PVOH per the aforementioned Runs simply following the guidelines of patentees at col. 7.

The utility of the compositions of each of Kotani et al as a creping adhesive would be tenable since the compositions are essentially the same as and made in essentially the same manner as the claimed adhesive. The onus to show that this, in fact, is not the case, is shifted to applicants as per In re Best, Bolton and Shaw(195 USPQ 430).

Claim Rejections - 35 USC § 103

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollenberg et al (U.S. 5,246,544).

Hollenberg et al disclose creping adhesives defined basically as containing a crosslinkable polymer which includes hydroxylated polymers and oligomers such as polysaccharides, polyvinyl alcohols, etc., crosslinking agents which include zirconium compounds having a valence of at least 3 and other conventional adjuvants. See, e.g., the Abstract, cols. 3-5 and the Runs of Hollenberg et al.

The disclosure of Hollenberg et al differs basically from the claimed invention as per the non-specificity relative to the disclosed polysaccharides but rather generic. However, one having ordinary skill in the art would have found it obvious to use as the polysaccharide species a species of the genus such as chitosan since the generic teaching necessarily implies that any species, including the claimed polysaccharide species, would have

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been operable within the scope of patentees invention and with a reasonable expectation of success, absent some evidence of unusual or unexpected results.

10. Claims 1-5 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smigo et al (U.S. 5,281,307) in combination with Hollenberg et al (U.S. 5,246,544).

Hollenberg et al is as already discussed supra and applied to claims 1-3 and 26. Further, Smigo et al disclose the use of a crosslinking agent which includes glyoxal, glutaraldehyde and those that are commonly employed for poly(vinyl alcohol) in combination with a poly(vinyl alcohol)/vinyl amine copolymer (PVOH/VAM) as additives in a paper-making process. See, e.g., the Abstract, col. 4, lines 32-43 and 61-65, col. 5, lines 14-24, col. 6, lines 8-20 and Runs 1-5 of Smigo et al.

The disclosure of Smigo et al differs basically from the claimed invention as per the non-express recognition of a zirconium compound as an operable crosslinker for the PVOH/VAM copolymer.

However, the recited "other crosslinking agents commonly employed for poly(vinyl alcohol)" per col. 6, lines 12 and 13 necessarily implies that any crosslinking agent falling within the scope of the genus, including the claimed zirconium compounds, would have been operable within the scope of patentees invention and with a reasonable expectation of success. Moreover, Hollenberg et al who teach the commonality of using zirconium compounds as crosslinkers for hydroxylated polymers such as polyvinyl alcohol

provide ample motivation to the skilled artisan to employ a zirconium compound as the commonly used x-linker for the polyvinyl alcohol component in the process of Smigo et al and with a reasonable expectation of success, absent some evidence of unusual or unexpected results. While Smigo et al do not expressly recognize the use of the additive composition, as modified supra, as a creping adhesive, its utility as such is tenable since the modified composition of Smigo et al is essentially the same as and made in essentially the same manner as the claimed adhesive composition.

Response to Arguments

11. Applicant's arguments filed 02/02/00 have been fully considered but they are not persuasive.

Relative to Smigo et al/Hollenberg et al—It is urged and maintained that the instantly claimed invention is obvious within the meaning of 35 USC 103 over the combination of Smigo et al/Hollenberg et al as per reasons clearly set forth in the Grounds of Rejection supra. The crux of Counsel's arguments appears to hinge on none of the prior art supra being able to form a useful creping adhesive on the drying surface. Firstly, Counsel is herein reminded that a composition and not a drying surface coated with an adhesive composition is being claimed. The Declaration is simply insufficient to remove the prior art rejection supra, said Declaration seemingly one of opinion from an interested party. The bottom line is that Counsel has simply

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not shown that the composition of Smigo et al, as modified, is insufficient as a creping adhesive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (703)308-4346. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-5885 for regular communications and (703)305-5885 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.

J. M. Reddick
Judy M. Reddick
Primary Examiner
Art Unit 1713

JMR *JMR*
December 15, 2000